Tropical Models - Detail - v3
Document Version 1.1

Domain Portfolio: Tropical | Domain: Models | Usage Classification: Standard

Geography: Global **Attribution Required:** NO **Attribution Requirements:** N/A

Overview
Returns all current models for the given stormId.

- **See the common usage and style guide which describes the common elements, error handling, language support, units and terminology used by the Weather Company Data APIs.**
  - **https://ibm.co/APICom**

HTTP Headers and Data Lifetime - Caching and Expiration
For details on appropriate header values as well as caching and expiration definitions, please see **The Weather Company Data | API Common Usage Guide**.

Translated Fields:
This TWC API handles the translation of phrases. However, when formatting a request URL a valid language must be passed along (see the language code table for the supported codes).

- latitudeHemisphere
- longitudeHemisphere
- stormType

URL Construction

Request by stormId: Required Parameters: stormId, format, language, units, nautical (true, false), apiKey https://api.weather.com/v3/tropical/models/detail?**stormId=<stormId>**&format=json&language=en-US&units=e&nautical=true&**apiKey=yourApiKey**
https://api.weather.com/v3/tropical/models/detail?**stormId=CP102017**&format=json&language=en-US&units=e&nautical=true&**apiKey=yourApiKey**

Nautical Parameter
If nautical=true, then any measurement that could be represented as knots is, regardless of the units parameter. Anything that is not subject to nautical form is left in the requested units (which is why you see pressures switch back and forth with units even when nautical=true)

units=e&nautical=true will give pressures in inches-of-mercury and speeds in knots units=m&nautical=true will give pressures in millibars and speeds in knots units=e&nautical=false will give pressures in inches-of-mercury and speeds in mph units=m&nautical=false will give pressures in millibars and speeds in kph

Wind Averaging Period

Governmental organizations providing tropical data use different periods of time when averaging wind values. The United States uses 1 minute values, New Delhi uses 3 minute values and all others use a 10 minute value. This applies to the following fields found in the payload

Model Details : winds

Data Elements & Definitions

Note: Field names are sorted alphabetically in the table below for presentation purposes. The table below does not represent the sort order of the API response.

Field Name	Description	Type	Range	Sample	Nulls Allowed
basin	Basin identifier	string	AL, CP, EP	EP	No
expireTimeUTC	Suggested removal time, 14 hours past the ingestion time.	epoch		1421175600	No
forecastPeriod	Forecast period time steps.	[integer]		[0, 12, 24]	No
latitude	Latitude of the storm.	[decimal]	Any valid latitude value.	[72.30, 70.20, 69.30]	No
latitudeHemisphere	Latitude hemisphere of the storm.	[string]		["N", "N", "N"]	No
linkedStormId	The associated Storm ID assigned to the storm identified from the model.	string		EP012017	Yes
longitude	Longitude of the storm.	[decimal]	Any valid longitude value.	[112.00, 113.40, 115.20	No
longitudeHemisphere	Longitude hemisphere of the storm.	[string]		["W", "W", "W"]	No
modelTimeUTC	Time that the model was run.	[integer]		[1421175600, 1421175600, 1421175600]	No
pressureMin	Minimum central pressure	[decimal]		[1002.00, 1003.00, 1004.00]	No
processTimeUTC	Time that the bulletin was processed.	epoch		2471984402	No
radiusMaxWinds	The distance between the center of a cyclone and its band of strongest winds	interger	0 to 999	999	No
source	Issuing Agency	string	NHC, other valid sources.	NHC	No
stormId	The Storm ID of this storm.	string		EP902017	No
stormType	Type of the storm at this moment.	[string]	Tropical Depression Hurricane Extratropical Subtropical Storm Remnants Of Tropical Storm Subtropical Depression Post-Tropical Cyclone Typhoon Super Typhoon Tropical Cyclone Unknown Tropical Low	["Unknown", "Unknown","Tropical Depression"]	No

			Tropical Wave Tropical Disturbance Inland Dissipating Extrapolated Potential Tropical Cyclone		
stormTypeCode	Type code of the storm at this moment.	[string]	TD=Tropical Depression HU=Hurricane EX=Extratropical SS=Subtropical Storm RO=Remnants Of TS=Tropical Storm SD=Subtropical Depression PT=Post-Tropical Cyclone TY=Typhoon ST=Super Typhoon TC=Tropical Cyclone XX=Unknown LO=Tropical Low WV=Tropical Wave DB=Tropical Disturbance IN=Inland DS=Dissipating ET=Extrapolated PTC=Potential Tropical Cyclone	["XX", "XX", "TD"]	No
technique	The model technique used to create the forecast model.	[string]		["CC00", "CC00", "CC00"]	No
windSustainedMax	Maximum sustained wind speed	[integer]		[35, 38, 37]	No
winds	Winds Object [array of 3 objects]	[object]			No
windSpeed	windSpeed [3 windSpeed objects] Containing (NE, SE, SW, NW) Speed of winds specified by the units applied.	[object]			No
windSpeed	Speed of winds specified by the units applied.	integer	34, 50, 64 in nautical mode, windSpeed is subject to conversions	34	No
NE	Distance that winds extend to the Northeast	[integer]		[0, 118, 124]	No
SE	Distance that winds extend to the Southeast	[integer]		[89, 84, 0]	No
SW	Distance that winds extend to the Southwest	[integer]		[106, 107, 118]	No
NW	Distance that winds extend to the Northwest	[integer]		[122, 135, 122]	No

JSON Sample


```
// Response Collapsed for Presentation Purposes
{
basin:"CP",
expireTimeUTC:1489161600,
forecastPeriod:[12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, -24, -18, -12, -6, 0, 0, 12, 24, 36, 48,…],
latitude:[22.5, 23.5, 24.1, 24.5, 24.4, 24, 23.6, 23.2, 23.1, 23.4, 23.9, 24, 23.6, 22.8, 18.6, 19.2, 19.7,…],
latitudeHemisphere:["N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N", "N",…],
linkedStormId:"CP302017",
longitude:[179.6, 178.7, 177.8, 177.1, 176.5, 175.9, 175.2, 174.6, 173.7, 172.5, 170.5, 168.1, 165.7, 164.2,…],
longitudeHemisphere:["E", "E", "E", "E", "E", "E", "E", "E", "E", "E", "E", "E", "E", "E", "E", "W", "W", "W", "W", "W", "W",…],
modelTimeUTC:[1489111200, 1489111200, 1489111200, 1489111200, 1489111200, 1489111200, 1489111200, 1489111200,…],
pressureMin:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 27.96, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
processTimeUTC:1488986792,
radiusMaxWinds: 999,
source:"NHC",
stormId:"CP102017",
stormType:["Unknown", "Unknown", "Unknown", "Unknown", "Unknown", "Unknown", "Unknown", "Unknown", "Unknown",…],
stormTypeCode:["XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "XX", "HU", "HU", "HU",…],
technique:["BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM", "BAMM",…],
windSustainedMax:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 115, 110, 110, 115, 115, 115, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
winds:[
{windSpeed:34,
NE:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 140, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
NW:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 110, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
SE:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 110, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
SW:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 70, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
},
{windSpeed:50,
NE:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 70, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
NW:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 60, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
SE:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 60, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
SW:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 40, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
},
{windSpeed:64,
NE:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 35, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
NW:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 30, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
SE:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 30, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…],
SW:[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 20, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,…]
}
]
}
```